DK
155

152022

CAGE

Class Dk No. 15-5-

Presented by
Griscom Fund.

JUL 24 1939

3.38

A LETTER to a FRIEND

ON THE

Subject of INOCULATION.

In which the Reaſons for the Practice are conſidered and enforced, and its Conſiſtency with our Duty to GOD, and to SOCIETY, aſſerted and defended.

By DANIEL COX, *M. D.*
Member of the Royal College of Phyſicians, London.

LIBRARY
COLLEGE OF PHYSICIANS
OF PHILADELPHIA.

LONDON:
Printed by CHARLES SAY, for W. MEADOWS, in *Cornhill*; G. HAWKINS, *Middle Temple Gate, Fleet-Street*; and R. and J. DODSLEY, *Pall-Mall*. M.DCC.LVII.

[Price One Shilling.]

A

LETTER, &c.

DEAR SIR,

HAD I no other inducement for giving you my ſentiments in writing on the ſubject of Inoculation, than, barely, that you deſired it of me, I ſhould certainly eſteem that one ſufficient: but when to this you added your reaſon for aſking it; that you might be enabled to eſtabliſh ſome ſenſible and valuable friends of your's, in the country, in a firmer perſuaſion of the propriety of the practice, a point, in which I aſſured you I was myſelf perfectly ſatisfied, the eſteem I have for you,

muſt naturally excite in me ſo much good-will towards your friends, that I could not but with pleaſure yield to the force of two ſuch prevailing motives.

But though I have ventured on the undertaking, you are not to expect a ſtudied diſcourſe, but muſt be content with ſuch miſcellaneous reflections, as my mind ſuggeſts without much deep attention; much like what paſſed in our converſation the morning you went out of town.

It is, I preſume, with this argument, as with many others: TRUTH lies juſt at the door, but, inſtead of ſtooping to take it up, we proudly gaze too high, and ſtumbling over the threſhold, miſs what we pretend to be ſeeking after: thus it has been, that the laboured reaſonings of ſome zealous diſputants againſt Inoculation have ſo perplexed the controverſy, by drawing more into it than fairly belongs to it, that it is not to be wondered at, that there ſhould be found, even among people, neither wanting in underſtanding,

ſtanding, or good intention, many who entertain ſcruples about the defenſibility of the practice:

I need not take the trouble to tranſcribe many of the extravagant things, which ſome of theſe zealots have advanced; a ſpecimen, or two, will enough inform you of their turn for argument, and convince you, I doubt not, at the ſame time, that neither integrity, or knowledge, had any over-ſtrong connexions with the warmth they ſhewed on the occaſion.

I have not the ſermons by me, for it was from pulpits theſe ſtrange things were uttered; but I give them as quoted by Dr. Kirkpatrick in the preface to his Treatiſe on Inoculation, publiſhed in 1754. 'The earlieſt theological combatant, ſays he, certainly ſet out with more zeal than knowledge, when without debating about the antiquity of the Small-pox, he came to the matter at once, and roundly affirmed the devil inoculated Job.' "He ſuppoſes his "diſeaſe that confluence of inflammatory

 "puſtules,

" puſtules, which, he obſerves, is now in-
" cident to moſt men; that it might be con-
" veyed to him by ſome ſuch way as that of
" Inoculation, and concludes, that he does
" not ſee what can be advanced to invalidate
" the ſuppoſition."—This ſermon, I think, was preached about thirty years ago.

From another ſermon of more modern date, viz, 1753, the Doctor quotes the following extraordinary paſſage: " it will be
" hard to produce, out of the huge ſyſtem
" of hurtful inventions, ever an inſtance big
" with more INFIDELITY and ATHEISM,
" than this of Inoculation."

The biſhop of Worceſter within theſe very few years paſt preached a ſermon, before the Governors of the Small-pox Hoſpital, great part of which is expreſly a defence of Inoculation: and even in the beginning of the diſputes, when the practice was but in its infancy, one biſhop at leaſt, and ſeveral others of the clergy, had their children inoculated: to have juſt mentioned to you theſe particulars ſeems reply ſufficient to this

wrong-

wrong-headed prieſt's charge of Atheiſm and Infidelity.

There have been, likewiſe, objections raiſed by medical writers; all, or moſt, of which have been ſupported by hypothetical reaſonings, not by an appeal to fair facts and experiments, which alone ought to decide in the caſe: I paſs theſe over at preſent, but may, probably, be led to touch upon them, as I go on.

That I may obſerve ſome order in writing, I ſhall firſt give you a ſhort account of the introduction of the practice of Inoculation.—Next ſome eſtimate of the ſuperior advantage of ſucceſs the artificial claims over the natural way of infection.—Then, attempt to ſhew to what natural cauſes this ſucceſs is owing.—And, laſtly, aſſert, and defend the conſiſtency of the practice with our duty, to God, to ourſelves, our families, and to the community in general.

It remains, I believe, unſettled, at what æra of time the practice of Inoculation had its

its origin, and, from what occaſion. It might be the reſult of reflection and judgment, but was, more probably, an accidental diſcovery: at leaſt, if that ſhews it to have been ſo, it was firſt uſed, as far as is known, among the UN-LETTERED: and, it might be well it was ſo, nor is it the firſt great diſcovery that has come out thus: for, had ſome ſort of learned men, I would mean ſuch who are poſſeſſed only of mere learning, got hold of the invention, before experience had given ſufficient weight to it, they would, perhaps, have theorized it quite away; they have attempted it ſince, and the world might have been deprived of the benefit of the practice: for the humour of philoſophizing deeply on matters of eaſy comprehenſion, which ſome affect, is very apt to lead the mind into a MAZE, and take it off from the perception of ſimple truths: while men of plainer parts, having no ſuch perverſities to miſguide their underſtandings, uſually ſee the force of facts, and ſubmit to the dictates of common-ſenſe; of themſelves, if honeſtly followed, generally ſufficient, in

the

the affairs of life, to guide us to what is right and uſeful.

But from whatever occaſion the practice took birth, it ſeems clear that it has been long in uſe among the Aſiatics, the Circaſſians eſpecially, (and, it is ſuppoſed, among other nations bordering upon the Caſpian ſea) whoſe principal view in performing the operation, on their daughters at leaſt, is ſaid to have been the preſervation of their beauty, for which, it ſeems, they are remarkable, that they might gain greater profits from the ſale of them, among the Turks and Perſians, for their Seraglios. But whatever might be the motive, if this ſecurity to their features was the event, it is a concluſion natural enough to make, that their health could not be impaired, much leſs their lives put in danger from the operation; ſince it is from the paucity of the puſtules, and their rarely leaving any unſeemly ſcars, or even ſtrong pits, that beauty is preſerved: and, it is from the ſame paucity of the eruptions, that life is ſo generally ſecure, both under the artificial and natural Small-pox.

The practice, or ſomething analogous to it, has been underſtood to have been long uſed in China, and is ſaid to have been ſo, for many years back, at leaſt one hundred and fifty, no farther from us than Wales, if their method was ſtrictly Inoculation; for the communication of the Small-pox by art has been ſomewhat differently practiſed in different places. I need not ſtop to explain theſe things to you, as it can be of no uſe, nor, I ſuppoſe, of any amuſement to one out of the profeſſion of medicine; my intention being only to enforce the prudential reaſons for having the operation performed, not to deſcribe the manner of doing it, which, with the neceſſary apparatus, has been ſufficiently explained by other hands.

Towards the latter end of laſt century it was, it ſeems, introduced into Turkey, or rather revived: a Theſſalian woman practiſed it many years at Conſtantinople, even to the inoculating, I think, about ten thouſand: theſe were not Turks, whoſe doctrine con-

concerning fate reſtrains them, but Europeans, Greeks, and Armenians.

Near forty years ago the practice was introduced into England by Lady Wortley Mountague, whoſe ſon was inoculated at Conſtantinople; and afterwards, on her return to London, her daughter was here inoculated. And, ſome experiments having been made on a few condemned malefactors with ſucceſs, the preſent King had his children inoculated, and the example was followed by other great perſonages, and by ſeveral private families: and, down to the preſent time, the practice has ſpread conſiderably in all parts of the kingdom, in our American colonies, and as late accounts have informed us, it begins to gain credit in France, Holland, and Geneva.

It is my purpoſe to be conciſe on every head, and to give you rather hints than tedious accounts: what therefore has been ſaid on this part of the ſubject, you will, I believe, think ſufficient.

Next, as to the calculation concerning its ſucceſs.—This is, I ſuppoſe, a matter not to be ſettled with any very preciſe accuracy: nor is it, for the defence of the practice, abſolutely neceſſary: it is enough that there is an acknowledged great ſuperiority of ſucceſs, which the artificial claims over the natural way of infection. Among about two thouſand inoculated patients, for ſome years paſt, under the care of two or three eminent ſurgeons of this city, there have not been above two or three miſcarriages. A merchant of St. Chriſtophers, when the Small-pox raged in a neighbouring iſland, with his own hands inoculated three hundred of his negroes, from the ages of five to thirty-five, without loſing one, as Dr. Mead has informed us in a treatiſe of his on the Small-pox; others may not have ſucceeded ſo well, nor indeed was the ſucceſs ſo apparent on the firſt introduction of the practice among us, as it is at this day.—In the Small-pox Hoſpital they have loſt but three out of 724. Two died out of the firſt 131, and but one out of the laſt 593, as their printed

account

account informs us, which takes in ſix or ſeven years paſt; and, in the Foundling Hoſpital, there have been inoculated, as I have been informed by Mr. Tomkyns, one of the ſurgeons of that hoſpital, near 300 children, of whom one only has died.—But putting together every calculation from the ſeveral accounts that have been collected, the moſt the favourers of Inoculation will admit the miſcarriages to be eſtimated at, is one in one hundred: indeed, for my own part, taking in all the accounts I have ſeen, I am firmly of opinion, that by this computation they ſcarcely do Inoculation juſtice.—However, let it be admitted at this calculation, for it is ſupport enough to the practice, ſince it is beyond diſpute that one, in five, ſix, or ſeven, die under the natural diſeaſe.

Now, to what cauſes, as well as we can trace them, would you not naturally aſk, ſhould this ſuperiority of ſucceſs be owing? And, this I have engaged to endeavour to ſhew.—Now, there ſeems to be a concurrence of ſeveral cauſes, which I will, as briefly as I can, enumerate.

The natural Small-pox is received into every habit of body, and under every accidental change of circumſtance attendant on that habit. A good habit for the reception to-day may, by to-morrow, through ſome irregularity, or unavoidable cauſe, be changed into a bad one; and a bad habit, by the ſame means, rendered worſe; for, amidſt the various intercourſe of life, errors may be eaſily committed, and injuries to the health ſuffered.—Children, eſpecially boys, from five or ſix to twelve or fourteen years of age, are perpetually heating themſelves, through their active propenſities to ſports, ſuited to their years.—The young and ſpirited, among our gentry, when ſpringing into the vigour of life, uſually engage liberally in exerciſe, as dancing, fencing, hunting, *&c.* Some indulge in high living, and, perhaps, run into other intemperances in the perſuit of their pleaſures: and all, even of both ſexes, probably, at one time or other, crowd amidſt the heat of drawing-rooms, the theatres, or other public aſſemblies: from theſe places iſſuing out into the cold air, from whoſe

hurtful

hurtful influence at ſuch a time, with all the cautions prudence can ſuggeſt, they cannot always be ſecure. It wants no illuſtration, that, under all theſe circumſtances, and many more that may be imagined, if the Small-pox ſhould ſeize them, their caſe would not be free from danger.—Nay, for aught any one can know, they may, by theſe means, be raiſing fuel, for the heightning an infection, imbibed already; for the Small-pox, as eruptions, the conſequence of an infection, is not, it may be fairly preſumed, the work of a day; but the infectious particles have been, probably, exerting their influence ſeveral days, before the leaſt alarming ſymptom of the diſtemper ſhews itſelf.

Among the deſcending claſſes of mankind you will find the ſame ſort of perſuits engaged in, varied only in the mode, and conſequently the ſame kind of effects may be expected to ariſe.

Now the practice of Inoculation, when conducted by a proper guide, promiſes as much as ſeems within the power of human

art,

art, to anticipate theſe hazards.—It guards the intended patient from extreme exerciſe, from irregularities of diet, and of every other kind.—If the habit of body is a good one, it profeſſes to keep it ſo;—if a bad one, it employs proper means to correct it, before the inſertion of the infection.—It chooſes the moſt temperate ſeaſon of the year for the operation: or, if neceſſity requires it to be performed, in order to obviate the danger, which a preſent popularity of the natural diſtemper may threaten, it regulates, as much as may be, the forbidding temperature of the ſeaſon.—The ſummer's heat is moderated by ſhade, perflation of the patient's chamber, and thin coverings—Fruits, and ſub-acid drinks, aſſiſt farther in cooling the blood.—The winter's cold is reſiſted by warm apparel, good fires, and additional bed-clothes,—and, if the blood wants to be invigorated, warm medicines, or a more generous diet, will accompliſh this end.

The manner, in which the particles of contagion are infuſed, may contribute likewiſe towards the mildneſs of the diſtemper, for they

they are inſerted into the ſkin, remote from, and with guards upon, the principal organs of life, the lungs and brain; and thus conveyed into the blood may become ſoftned or meliorated, as to their degree of virulence in themſelves,—at leaſt it ſeems ſo from the known effect of a mild degree of the diſtemper being produced, though matter taken from a bad ſort of the natural Small-pox has been uſed in Inoculation: unleſs this event ſhould be wholly placed to the account of the preparation.—The particles of infection are inſerted too in a ſort of limited quantity, whereas, in the natural way of infection, the quantity of the variolous effluvia can ſcarcely be circumſcribed in imagination.—Not that I would lay too much ſtreſs upon theſe remarks, for experience fairly ſhews, as was juſt now hinted, that it is the good temperament of the body, whether, according to nature, or procured by art, joined to the management before and after the reception of the infection, that principally influences the event.

Now I have mentioned the management, or treatment, of the diſtemper, after it is received,

LIBRARY
COLLEGE OF PHYSICIANS
OF PHILADELPHIA.

ceived, give me leave to perſue a hint it ſuggeſts to me, of no ſmall conſideration, and, if I miſtake not, much to the advantage of Inoculation.

The natural Small-pox, we have obſerved, ſeizes promiſcuouſly perſons of all ſorts of temperaments, in all ſeaſons too, and under every difference in the ſenſible qualities of the air.—It invades too in all places,—in town, or in country, and in different parts of each. —You put yourſelf under the care of, perhaps, the practitioner who dwells neareſt to you, or who happens to be firſt recommended.—You may know little of the abilities of this perſon, or if you ſhould have faith in him, from your ſuppoſed knowledge of him, it may be faith without any real diſtinction of his medical capacity, which it will be difficult for you to diſcriminate: ſhould it happen now that this practitioner, let his denomination in phyſic be what it will, ſhould entertain ſome of the old notions concerning malignity (a term which, in the opinion of our ſagacious countryman Dr. Sydenham, had cauſed more deſtruction to

mankind

mankind than the invention of gunpowder) and, with theſe notions, the neceſſity of oppoſing it by high cordials, and a hot regimen, in order to expel the malignant particles from the blood, and drive out the pock, as the phraſe is, you may have a diſeaſe, of itſelf, for the moſt part, inflammatory enough, ſoon heightned into aduſtion: or, ſhould he, on the other hand, without a judicious reſtriction on the practice, have aſſumed a regard to the cooler regimen, he may err, on this ſide, by evacuations, acids, nitre, and cool air, till the eruptions are totally ſuppreſſed, and the patient is chilled into death: and, if we farther place to the account the influence, which ſome of your knowing nurſes have in families, who, in the preſent caſe at leaſt, are ſeldom acquainted with much more, than how to ſuffocate the patient within cloſe curtains, and heaped-up bed-clothes, you will not be at a loſs, if to this you add too the danger from the diſtemper, in ſome caſes, even under the moſt ſkilful treatment, to conceive, what infinite hazards muſt be riſqued from ſuch frequent cauſes as theſe are.

But to few, if any of theſe hazards are you liable when you inoculate. You have time to deliberate, where you will reſide—to caſt about to prepare yourſelf—and to place the conduct of that preparation, and of the ſubſequent management, in the hands of perſons perfectly verſed in the practice, with, perhaps, ſcarcely one of the Inoculators governed by any precarious hypotheſis, but all eſtabliſhed in right principles drawn from rational experience, the only ſolid foundation of the art of medicine: I need not point out who theſe are in town: Indeed the practice is now ſo generally eſpouſed, and ſo well underſtood, that there can be no difficulty here in fixing the choice; and ſo much, likewiſe, has it extended itſelf to all parts of the kingdom, that there will be found few country towns of any note, even where no phyſicians reſide, but what furniſh, as well as London, practitioners of abilities, if they have given any tolerable application to it, to conduct a proceſs, concerning which, no learned chimeras, to miſlead the judgment,

have

have yet got foundation, but all is the reſult of plain obſervation, and common ſenſe.

I have thought it neceſſary to ſay thus much to you on this head, in order to take off any uneaſy impreſſions, which your friends might have, ſhould Inoculation be their choice, and ſhould it at any time be inconvenient to them to have the operation performed in town, where the fulleſt aſſiſtance is always to be had, and which, people of fortune, as they need not, ſo they ſeldom chooſe to be without.—And that I have not advanced theſe things at random, with reſpect to one of the denominations in the profeſſion, which I have above alluded to, that eſſay, which I gave you to peruſe, *on the preparation and management neceſſary to Inoculation*, written by an apothecary, will enough evince ;—and there will not, I ſuppoſe, ariſe any diſpute about the abilities of the other two branches of the profeſſion.

Before I diſmiſs this head, I ſhall take leave to make one obſervation, which naturally ariſes from what has preceded, and

which, indeed, it would not be humane to omit; that, if the ſucceſs of Inoculation does ſo much depend upon a good temperament of body, and the cautions uſed to guard againſt every occaſional injury to the health, it is obvious, of how great importance it is, in times, eſpecially, when the Small-pox is epidemic, to perſons who have not yet had them, and are not to be prevailed with to inoculate, to preſerve ſuch a ſtate of body, as is obſerved to be leaſt productive of a high degree of the diſtemper. They ſhould avoid all thoſe cauſes which have been enumerated, as rendering the natural diſtemper dangerous, ſuch as vehement exerciſe, crowded aſſemblies, high living, and intemperance of every kind. The diet ſhould be of a light, cooling, and ſubacid kind, and the body, for ſome conſtancy, kept in a ſoluble ſtate, eſpecially if the conſtitution is of the more generous kind, and ſubject to inflammatory diſorders. To perſons indeed of a different habit, it may be improper, as it would in the preparation for Inoculation, that they ſhould be kept too low, or that evacuations ſhould be uſed too freely: this might hazard the ſucceſs in the artificial, and it would be

injudicious

injudicious therefore, in the ſeconſtitutions, to practice this method of management, in apprehenſion of the natural Small-pox.—But theſe things can be but mentioned in general; for as to the particular regimen neceſſary in different habits, it is certainly as requiſite to conſult ſome judicious practitioner concerning it in this caſe, as it is in the preparation for Inoculation.

I am now come to the moſt important part of my ſubject, the conſideration whether the practice of Inoculation is conſiſtent with our Duty to God,—with that, likewiſe, which we owe to ourſelves, to our families, and to the ſociety in general.

I ſhould be ſorry to weaken in any degree that juſt reverence and ſubmiſſion which we owe to the will of the Supreme Being: but, I cannot help thinking, that his name is much too often introduced into theſe kind of arguments; and ſometimes, with a freedom not a little derogatory to his attributes; as though the laws, he preſcribes to man, flowed from arbitrary will, and were mere

poſitive

poſitive laws without any rational motives or tendencies. Now, this is ſuppoſing the laws of God to be inferior to human laws, in which there is always an expreſſion, or implication, of ſome reaſon for making them, and, of ſome good intention towards thoſe who are expected to obey them; otherwiſe, they would not be the laws of wiſdom and juſtice, but of caprice and tyranny, which can, in no degree, be the character of the divine laws.

If this then be the caſe, I would aſk, how ſhall a reaſonable Being, allotted to exiſt, through a certain ſeries of years, in a ſocial connexion with multitudes of the ſame ſpecies, and amidſt a number of inconveniencies and dangers, the apparent condition of that exiſtence, judge of the duties incumbent upon his ſtation, but by exerciſing thoſe rational powers about them, which his beneficent creator has bleſſed him with? Let us try then, whether we can ſupport, by REASON, the argument we are defending; which, if we can, we may reſt ſatisfied, that, by practiſing Inoculation, we ſhall commit no offence

againſt

againſt GOD, nor any repugnance to TRUE RELIGION; which, as the religion revealed by God, muſt be compatible with, at leaſt not contrary to, THAT REASON, which HE has given us, whereby to judge of all religions.

Leaving therefore religion, ſtrictly as ſuch, out of the queſtion, not ſlightingly, but out of reſpect to it, as not neceſſary to be introduced, the argument will come to be conſidered in a moral and political light, and may be reduced to this plain queſtion.—Whether, with regard to our more limited, or extended, relation to ſociety; that is to ſay, whether, under family, or national connexions, Inoculation ought to be encouraged, and put in practice.

Now the reaſons, which prevail with regard to individuals, will have the ſame force towards the aggregate, and, *vice verſâ*. What one man therefore may act in his private capacity, a dozen may, as united in a family, and ſo, in gradation, may the whole community, while the GOOD of the WHOLE is intended

tended and conſulted; even though leſſer evils might, now and then, fall out to ſome particulars.

Various caſes might be put to illuſtrate the argument: I have ſometimes turned it over in my mind after this manner:

I have ſuppoſed a prince, deſpotic as the Grand Signor, if you will, or the Great Mogul: if he conſulted the ſecurity and happineſs of his people; and, power ought never to be exerciſed, but for ſuch purpoſes; nor indeed, without offence to common ſenſe, can it be delegated, but with the intention that it ſhould be thus employed, would he not, if he had been well informed of the affair, reaſon thus on the caſe I am ſuppoſing?

The government of, and power over, this people, is totally in my hands, and I ought to exert them for their good.—Their number amounts, at this time, to ſeven millions: Is not this about the computation of the people of England?—'Till lately the Small-pox was a ſtranger to our country.—It has now,

by

by ſome means or other, reached us, and may ſpread quite through the kingdom. According to the calculations I find made in other countries, ſhould all my people in ſucceſſion be ſeized with the diſtemper, there would be loſt one million of them.—There is a method, I am informed, diſcovered of conveying the diſtemper by inoculation, in ſo mild a manner, for the moſt part, by means of ſome previous regulations obſerved towards the patient, that not above one in an hundred, perhaps not ſo many, die of the diſtemper thus communicated: on this eſtimate, if all my people were to be inoculated, I ſhould loſe of them only ſeventy thouſand, which is nine hundred and thirty thouſand leſs than would periſh, were they to receive the diſtemper in the ordinary way of infection. Can I heſitate then about uſing my authority, that they ſhall ſubmit to the operation as ſpeedily as their preparation will allow? Surely not: and I will ſet the example in myſelf, and my own family.—For, I ſhall not only hereby preſerve ſo great a majority from almoſt certain death, but I ſhall add to the happineſs of their lives, an

exemption from all terror of the diſtemper hereafter.—Would you not now eſteem ſuch a prince the true father of his people, and fit to be truſted with SOVEREIGN power? A POWER, which in all governments, of whatever form, muſt be lodged ſomewhere, and may be fairly exerciſed with the fulleſt ſcope, where the natural rights of the people are not unjuſtly dealt by, which, in the caſe we are ſtating, it were eaſy to ſhew, from ſeveral ſimilar inſtances, that they are not.

From our deſpotic prince, and the intereſt of a whole kingdom, let us now ſtep into private life, and obſerve how our reaſoning will ſuit the circumſtances of a more contracted family.

A father has, I think, been called a king in his own houſe.—I would not wiſh the ſaying to be extended to that enthuſiaſtic length, which ſome flatterers have ſtretched the doctrine, when they made Adam, by divine appointment, abſolute in his own family, that they might from hence compliment their favourite aſſuming princes with a

jure

jure divino power of acting, as they pleaſed, without controul: though, in a more modeſt ſenſe, a parent may be allowed to have a governing power, as he has the conduct of, perhaps, ſeveral helpleſs children, whom he has been the means of bringing into being, and whoſe good he is compelled by every rule of juſtice to conſult, and which, without ſome degree of ſuch power, he cannot effectually promote.

Let us now ſtate a caſe with reſpect to this ſuperior of an houſhold.—If he has ſeven children, and they ſhould all be ſeized with the Small-pox in the natural way of infection, the chance againſt him is the loſs of one, and in his favour the recovery of ſix.—Suppoſe him to have an hundred children; for while we are putting caſes, why not ſuppoſe it? And, ſhould they all have the Small-pox in the natural way, his loſs, on the calculation, would be about fifteen: but, if he inoculated them, the hazard will be no more than of one, perhaps not that.—Can it be ſaid then, that this parent has no right to aim at this ſecurity to his children, but muſt permit

them to riſque every danger they are otherwiſe expoſed to, beſides ſuffering on his own, and on their ſide, if of age to feel it, the continual uneaſineſs which is wont to accompany them, till the diſeaſe is paſt over, when providence has put ſo fair a remedy in his hands to obviate ſo great a part of the evil?

But it will, perhaps, be ſaid, if this parent had let his children alone, they might never have the diſtemper at all: To this it is replied, the inſtances are ſo few, of thoſe, who paſs through life without having the Small-pox, that the precedents can ſcarcely be allowed to ſuffice for the objection: and, ſo it is generally underſtood, as appears from this ſlight inſtance, the caution which almoſt every family uſes, in refuſing to hire a ſervant, who has not had the diſtemper.

Should it be objected:—but may not the patient have the diſtemper afterwards in the natural way, notwithſtanding they have gone through it by Inoculation? I anſwer, poſſibly, yes: and, ſo they may after they have had it in the natural way, for any thing that

reaſon,

reaſon, abſtractedly, can urge to the contrary; but not more in one caſe than the other: for, it is by obſervation, not by reaſon, that we are authorized to ſay, that the Small-pox is not produceable a ſecond time; and, obſervation has not ſhewn it deſerves to be more apprehended after the artificial than the natural Small-pox, that is to ſay, to be apprehended ſcarcely at all: for would one ſuch inſtance in three or four thouſand, was that the calculation, which I preſume, it by no means is, nor, perhaps, can any be made, reaſonably excite any terror of a ſecond ſubjection to the diſtemper.

Or, will it be objected, May not ſome other diſtemper be communicated by Inoculation beſides the Small-pox? To this queſtion it might ſuffice ſimply to reply in the negative, and call upon the objectors to ſhew the affirmative: for, it is an objection ſcarcely preſumed to be built on any known and well atteſted facts: and we are not enquiring what may be, but what is: ſo that, in dealing with the objectors on this

this head, who ought to bring fair proofs if they have any, we might argue only theoretically as they do, and the reaſoning, even then, I am well convinced, would preponderate much on our ſide of the queſtion: but we can go farther, though it is indeed a negative proof, but yet not without weight, and aſſert on the authority of the principal Inoculators, that no ſuch facts have come to their knowledge in many hundred caſes they have attended, though they have been acquainted with very many of their patients for years after. And there is a caſe, perfectly in point, in which through an accidental ignorance of a ſecret diſeaſe a perſon laboured under, the knowledge of which came out afterwards, matter for Inoculation was taken from him: the inoculated patient, a young lady, went well through the diſtemper, and to the end of many years which have ſince intervened, not the lighteſt ſymptom of the collateral diſeaſe has appeared.—The caſe is recorded, among ſome other corroborating arguments in anſwer to this very objection in Dr. Kirkpatrick's diſſertation on Inoculation publiſhed two years ago, a work of great merit,

merit, and capable of affording much medical inſtruction to ſuch practitioners in phyſic, who will be at the pains of ſtudying cloſely the doctrines therein contained.— And, within theſe few days, while this letter was tranſcribing fair to be ſent to you, a ſmall, but ſenſible pamphlet, called, *the grand objections to Inoculation conſidered*, fell into my hands, in which five caſes are mentioned, wherein it was fully known afterwards, that the Sick of the Small-pox, from whom matter was taken for Inoculation, were actually affected with ſcrophulous, ſcorbutic, and other chronical diſeaſes, and no ill effect from them has happened to the inoculated, though it is from one, to five or ſix years, ſince the Small-pox was communicated.

But to return to our father of a family. I have aſked whether he has not a right in him to provide for the ſecurity of his children in this very important point? And to illuſtrate the queſtion farther, I would beg that it might be conſidered, what he conſents

ſents to, in the diſpoſal of his children, in ſome other caſes.

When his ſon arrives at the ſuitable age, he buys him a commiſſion in the army, not for amuſement, and parade, I preſume; but, that he may really ſerve his country in war, when he is called upon. Imagine him engaged, with twenty thouſand of his collegues, againſt the ſame number of enemies; and ſhould the diſpute be warm, what think you would be his proportion of the hazard of being ſlain?—not to mention the riſques to his life, which encampments or cantonings, in marſhy, or other unhealthy ſituations, expoſe him to.—In the navy the dangers are, perhaps, not ſo great (ſome eſteem them greater) though ſhould he get into a general engagement, or even with ſingle ſhips, they are, by no means, contemptible; beſides what may be placed to the account of ſtorms, ſea diſeaſes, or other accidents.—There wants not preciſion in calculations on theſe heads. —The hints, I offer, being only to illuſtrate the main point of a parent's being juſtified in

adviſing,

adviſing, conſenting, or decreeing, for his ſon in matters of this nature; and the application will be the ſame, *mutatis mutandis*, in all caſes.—So will it be with reſpect to perſons farther advanced in life, and out of their parent's tuition: for what a parent may determine for his child, it will, I believe, not be diſputed, that every man may for himſelf.

I will ſuppoſe you, by this time, ſatisfied with the propriety of the proceeding in a parent towards his child:—in every private perſon towards himſelf:—and, that it is alſo conſiſtent with ſound NATIONAL policy, or CIVIL prudence, to indulge, nay promote, perhaps command, the practice of Inoculation.—Since, if all now living, who have not had the Small-pox, were to be inoculated, and at a certain age, five or ſix years of age for inſtance, every one elſe in ſucceſſion, the natural diſeaſe would be attended with ſmall deſtruction, as ſubjects for its devaſtation would be wanting, except among thoſe of the under age, who would be leſs liable too, unleſs perhaps during the time of dentition, to danger, both from

 their

their manner of diet, and generally milder temperament of body, than adults frequently are.

If the preceding arguments, and the concluſions drawn from them, are allowed to be juſt, we may certainly, I think, infer farther, that no man need entertain any compunction of mind about Inoculation on a religious account, ſince it would be abſurd, nay, in my opinion, profane, to ſuppoſe the ALL-WISE BEING offended at his creatures for conſenting, under all the perſuaſions of reaſon, and with every honeſt intention, to a practice, which appears ſo productive of good to mankind: and under which we are capable of diſcovering as much dependance upon providence, and reſignation to the divine will, as any one poſſibly can, in waiting for the, ſo much more to be dreaded, event of the diſtemper received in the natural way.

But perhaps I expreſs myſelf too ſtrongly: I do not mean to cenſure thoſe who differ from us in opinion on this practice, if that difference is really the reſult of ſober re-

flection,

flection, and conviction of mind, and not of a ſpirit of cavil and contradiction. I would have every one act according to the dictates of his own conſcience, and think nothing reproachable, but the want of a calm and deliberate examination of the ſubject, taking facts and experience, not hypotheſis, for our guide.

The Biſhop of Worceſter has expreſſed himſelf, on ſome of theſe points, with great force, and true chriſtian benevolence, in his preface to the ſeventh edition of his ſermon beforementioned. — The quotation, I am ſure, will give you ſatisfaction.

'I beg leave, ſaith he, to obſerve that, 'in all the important actions of human life, 'ſcarce any maxim can tend more to the 'ſatisfaction and quiet of the mind than, un-'der a due dependance upon divine provi-'dence, to acquieſce in the conſequences of 'any reſolution taken with mature and impar-'tial deliberation. This ſentiment is com-'paſſionately offered, to prevent that torment-'ing uneaſineſs and ſelf-condemnation, which

'one has ſeen, with ſo much pity and con-
'cern, diſturbing the minds of parents un-
'der any unfortunate event, when they
'really acted for the beſt. The injunction
'given by the great apoſtle of the Gen-
'tiles, is truly benevolent, as well as reli-
'gious: "*let every man be fully perſuaded*
"*in his own mind.*" 'And, when this is
'the caſe, acting in purſuance of ſuch con-
'viction, ſhould create no uneaſineſs. Events
'are in the hands of providence. Mankind
'can only do what, upon full conſideration,
'appears wiſeſt and beſt at the time of act-
'ing; and ſhould only reproach themſelves
'when they do or forbear any thing con-
'trary to prudence, and their ſedate judg-
'ment.'

Many other excellent ſentiments on diffe-rent parts of the ſubject, might be quoted, both from the preface and the ſermon;—from the latter I ſhall take leave to produce the following, which much deſerves the at-tention of thoſe who object to Inoculation, yet make no ſcruple of ſuffering their children to remain among, or even profeſſedly carry-

ing

ing them, ſometimes too I doubt, unprepared, to other children ſick of the Small-pox.

'It is needleſs, ſays the Biſhop, to enter 'into a diſquiſition, which is the propereſt 'method of deſignedly raiſing this diſorder 'in the human frame;—by carrying the 'perſon that is to receive it, to the contagi-'ous ſteams or effluvia,—or bringing to him 'the infected matter.—Religious difficulties, 'if any ſtill remain concerning a practice, 'that has preſerved ſo many lives, and pre-'vented the heavieſt grief in ſo many fami-'lies, are exactly the ſame in either method 'of voluntary communication; for 'tis no 'more invading the prerogative of heaven, 'to occaſion one eaſy and voluntary convey-'ance of the infection than another, '*&c. &c.*'

And as to the medical reaſons on this head; that the artificial is to be preferred to the natural way of infection, ſeems ſtrongly concluſible from this one circumſtance, that the lungs and brain are as much as poſſible

ſecured

ſecured from the reception of the contagious ſteams when we inoculate, but in the accidental way of communication, they are the principal channels, through which the infectious effluvia are immediately introduced.

But it is high time, Sir, to releaſe you from the attendance this long epiſtle has impoſed upon you: it has really from day to day ſo ſwelled upon my hands, that it ſeems to be grown into a volume almoſt. But I was willing, if in my power, to give you compleat ſatisfaction, and think I have not omitted any thing materially neceſſary to be conſidered: you will therefore, I make no doubt, for the ſake of my good intention, forgive the long penance I have enjoined you. To ſay the truth, the ſubject, which I at firſt heſitated ſomewhat about engaging in, grew gradually entertaining to me, and led me on with more eagerneſs than I expected: and, when the *impetus*, you know, is upon one, it is not always eaſy to reſtrain it, though one has ſometimes reaſon enough to wiſh that its urgings were leſs prevailing.—

Leſt

Leſt therefore I ſhould get again into the ſtrain of writing, I ſhall cut my diſcourſe ſhort at once, and conclude with aſſuring you that, I am,

London, Nov. 5, 1756. *Dear Sir,*

Your ſincere, and affectionate,

Humble ſervant,

D. C.

POST-

POSTSCRIPT.

AFTER expreſſing my conſciouſneſs of having already written too long a letter, and apologizing for it, you will ſmile, I am ſure, at my ſpinning it out to a ſtill greater length under the guiſe of a poſtſcript. But ſince finiſhing the foregoing pages, I have been reading over, with ſome attention, and no ſmall pleaſure, a pamphlet on this ſubject, publiſhed laſt year.—From the ſatisfaction it gave me, I was induced to think a few extracts would be well received by you; and as they will ſerve beſides to give weight to ſome doctrines I have advanced, I ſhall have the leſs need to excuſe myſelf, for giving you this additional trouble.

This treatiſe is called, *a diſcourſe on Inoculation*, read before the Royal Academy of Sciences at Paris the 24th of April, 1754, by Monſ. la Condamine.

This

This gentleman was one of the three members of that academy, who made that laborious expedition, ſome few years ſince, to the equator, to meaſure the firſt degrees of the meridian, by that means to aſcertain the real figure of the earth; as is mentioned by Dr. Maty, in the preface to his tranſlation of this diſcourſe from the French.

In this preface of Dr. Maty's, we find this ſenſible obſervation.—'The very diffe-
'rent reception Inoculation met with, among
'ſome un-enlightned Aſiatics and Ameri-
'cans, and among the civilized inhabitants
'of one of the moſt conſiderable nations in
'Europe, may teach us not to think reaſon
'confined to any ſpot of ground. It has
'been many times obſerved, and cannot be
'too often repeated, that un-aſſiſted nature
'is a much ſurer guide to truth, than the
'greateſt learning attended with prejudice
'and paſſion.'

Mr. la Condamine, ſpeaking of the chil-
dren of our royal family being inoculated,

makes a remark ſomewhat ſatyrical upon our nation, though, perhaps, too true.—'This brought, ſays he, the method into 'vogue and repute: however, this example, 'which, any where elſe, would at once have 'ſettled and ſpread a practice ſo conducive 'to the good of mankind, rather obſtructed 'its progreſs in a divided country, where 'reaſon, though ſupported by experience, is 'no ſooner adopted by one party, but it is 'thwarted by the other.'

However, he makes us ſome amends by hinting that his own countrymen are not much freer from this ſpirit of oppoſition. Speaking of Inoculation, as flouriſhing in Turkey, and countenanced and improved in England, but oppoſed in France, he adds, 'but with ſome people any remedy coming 'from Turkey, and well received in a Pro-'teſtant country, does not ſo much as de-'ſerve an examination. Be that as it will, the 'too common prejudice againſt whatever 'is ſingular and new, got the better of rea-'ſon.'—I fancy Frenchmen would tell their minds pretty freely, both about political and

religious

religious matters, if they were not afraid of excommunications, and lettres de Cachet.

The opponents of Inoculation in France ſeem to have been poſſeſſed with as wild imaginations as ſome of our countrymen: he mentions one of them, and a phyſician too, after this manner:—'We are not to 'wonder that the Inoculation of a diſtemper 'in an human body ſhould appear criminal 'to him, who ſeems to think the practice 'of it on trees unwarrantable. His argu-'ments (*viz.* againſt inoculating the Small-'pox) are theſe.' "Its antiquity is not ſuf-"ficiently known.—The operation reſts "upon falſe facts.—It is unjuſt, void of art, "deſtitute of Rules.—It doth not carry off "the variolous matter.—It has a double "ſtamp of reprobation.—It runs counter "to the creator's views.—It doth not pre-"vent the natural Small-pox.—It is con-"trary to the laws.—It bears no likeneſs to "phyſic;—and, favours ſtrongly of ma-"gic." 'This, ſays he, is a ſpecimen of 'the book, and of the reaſoning of our

‘ moſt learned and celebrated Anti-Inocu-
‘ lator.’

He tells us of the artifice, ‘ of the Greek
‘ inoculating woman, in ingratiating herſelf
‘ with the clergy, who ſupplied her with a
‘ prodigious number of ſubjects to inocu-
‘ late,’ and this ſhe did ‘ by accompanying
‘ the operation with many ſuperſtitious ce-
‘ remonies, and with the oblation of wax
‘ tapers.’—A ſure method of gaining the ſanction of bigotted and avaritious prieſts.

In anſwer to the queſtion, whether Ino-culation preyents the natural infection, he quotes ſeveral proofs of the affirmative from books publiſhed in England. ‘ Inoculated
‘ children, ſays he, have been frequently
‘ ſuffered to keep company with others who
‘ have had the natural diſtemper without
‘ catching it again.—A woman, one of the
‘ ſix criminals in Newgate, on whom the
‘ experiment of Inoculation was firſt made,
‘ after her recovery nurſed more than twenty
‘ perſons under the Small-pox, and yet ſuf-

‘ fered

' fered nothing from the infection;—and ' ſeveral perſons formerly inoculated, had ' been again inoculated without producing ' the diſtemper.—A malefactor, who had ' had the Small-pox in the natural way, was ' inoculated, and a greater quantity than ' uſual of the variolous matter was made uſe ' of, but without effect.'—Dr. Maty, whom I mentioned before, as having tranſlated this diſcourſe of Monſ. la Condamine's, informs us in a note on this head, ' that he lately ' tried this experiment on himſelf, and the ' event was the ſame, *viz.* the infection, ' though conveyed by the means of two in- ' ciſions, had no effect upon his blood, as ' it had been ſufficiently defœcated fifteen ' years before by the natural Small-pox;' and the ſame ſort of trial was made on the honourable Mr. John Yorke,—his caſe was peculiar. ' He was inoculated by Mr. Sear- ' geant Hawkins, at the age of twenty.— ' The operation brought on at the uſnal ' time, the inflammation, and ſuppuration ' of the wound, the ſwelling of the arm, ' the ſickneſs, fever, and all the ſymptoms ' of the Small-pox, but, *without any erup-*

' *tion*;

'*tion:* the want of this engaged Mr. Yorke, 'though he was well aſſured the operation 'had its full effect, to have it repeated. But 'this repetition was intirely ineffectual; the 'wound healing up immediately as a mere 'ſcratch.'

I thought it, Sir, much worth the trouble of tranſcribing theſe paſſages, as they muſt be of ſingular importance towards quieting the minds of thoſe, who may retain any doubts about their ſecurity after Inoculation againſt the danger of a ſecond infection in the natural way.

His reply to another objection, '*That the 'giving a diſtemper, or preventing it in one, 'who in the order of providence was deſtined 'to have it, is an uſurpation of God's right,*' is, in my opinion, a very juſt one.—'This, 'ſays he, is the objection of Fataliſts, and 'rigid Predeſtinarians. Does a reliance 'upon providence imply, that we are not 'to prevent thoſe evils which we foreſee, 'and which we have it in our power to 'guard againſt by prudent precautions.

'They,

'They, who maintain this principle, muſt 'if they act conſiſtently, prohibit preſerva-'tives in general, and all remedies, which 'tend to leſſen the malignancy of any di-'ſtemper. They muſt follow the example 'of the Turks, who on pretence of caſting 'themſelves upon providence, periſh by 'thouſands of the plague, *&c. &c.*' But that the Turks are not all ſuch rigid Fataliſts, we may learn from the ingenious Dr. Ruſſel's Natural Hiſtory of Aleppo (publiſhed this year) in which city he reſided ſeveral years.—'Though, ſays he, the Turks 'cannot, on account of their religion, do it 'avowedly, (it being lawful for them to 'abſtain from going into an infected city, 'but not to fly from one, infected while 'they are in it) yet ſuch of them as have 'been any ways converſant with the Eu-'ropeans, and are not mere bigots, either 'keep at home on pretence of being indiſ-'poſed, or retire to ſome garden for change 'of air, if their affairs will not admit of 'their going abroad to ſome diſtant place 'where they imagine the diſeaſe does not 'reach. A journey to *Mecca*, on pretence 'of devotion, is their moſt common expe-'dient.'

'dient.' You ſee, Sir, how readily people would obey the dictates of right reaſon, were they not reſtrained by their ſuperſtitions and their fears.

I have intimated in one part of my letter an opinion, that Inoculation might be enforced by a legiſlative power, without injuſtice to the natural rights of the people. I have too much regard to the natural rights of mankind to be very ſanguine on this head: but, I think, Mr. la Condamine's anſwer to the objection, '*that it is not lawful to do ever* '*ſo ſmall an evil to produce the greateſt good,*' gives much ſtrength to that opinion. 'This 'argument, ſays he, is founded on a mi- 'ſtake. Suppoſe this principle is ſtrictly and 'generally true with regard to moral evil, it 'will by no means hold good when applied 'to phyſical evil. It is certainly lawful to 'pull down a houſe to ſave a whole town 'from fire. This is a phyſical evil, which 'can hardly take place without ſome degree 'of moral evil. A whole province is laid 'under water to prevent the tranſient deva- 'ſtations of an enemy. Entrance is refuſed 'into an harbour to a ſinking veſſel when

'ſupected

‘ ſuſpected of infection. In a time of
‘ plague lines are drawn, and, though hu-
‘ manity ſhudders at the thought, orders
‘ are given, without ſcruple, to fire indiffe-
‘ rently on all thoſe who offer to paſs them.
‘ Is therefore the ſmall phyſical, or if you
‘ will, moral evil of Inoculation, to be com-
‘ pared with all theſe evils, which are
‘ tolerated, allowed of, authorized by all
‘ laws?’

By theſe few ſpecimens you will judge of the merit of this diſcourſe of Mr. la Condamine's;—and, though they have prolonged your taſk of reading, as well as mine of tranſcribing, yet I perſuade myſelf, that the ſatisfaction you will receive from them, and the additional force they give to the whole argument, will make your part no more unpleaſing to you, than wine has been to me; and then, I ſhall be far from repenting the trouble I have taken.

I will juſt give you one or two paſſages more, which, I think, ingenious and ſtrik-

ing, and then, in good earneſt, conclude, recommending the whole treatiſe to your peruſal.

He had been conſidering and anſwering ſome other objections, and at length comes to the following.—'But the charge, ſays he, 'is renewed.'—"Who will ever perſuade a "tender father wilfully to give his only ſon "a diſtemper which he may poſſibly die "of? Be the danger ever ſo ſmall to which "he expoſes him by Inoculation, were it "but one in an hundred, nay, in two or "three hundred that this operation is fatal "to, as is ſuppoſed, ought he voluntarily "to expoſe his ſon to this danger?" Yes, 'ſure, replies he, to ſave him from one in-'finitely greater. If prejudice does not 'totally extinguiſh the light of reaſon in 'the father. If he loves his ſon he cannot 'heſitate a moment. This is not a queſ-'tion in morality,' [*I am not clear, by the way, that he is right here,*] 'it is a matter of 'calculation. Why ſhould we make a caſe 'of conſcience of a problem in arithmetic?

'A

'A father ought to avert the dangers his 'ſon is threatned with, and if he cannot 'totally preſerve him from them, he ought 'to leſſen the peril as much as poſſible: 'upon this principle ought he, or ought he 'not, to inoculate his ſon? To decide the 'queſtion, you need only compare the ha-'zards the child runs in both caſes.'

And, a few pages farther on, after ſome calculations of the different event of the diſtemper, under the two ways of communication, he proceeds thus:—'let us endea-'vour to illuſtrate this important truth, by 'ſhewing it in a new light.—You are 'obliged, we ſuppoſe, to croſs a deep and 'rapid river; the danger of being drowned 'is great, if you ſwim over. A by-ſtander 'offers you a boat. If you reply, you had 'better not go over at all, you miſtake the 'ſtate of the queſtion; for you are under a 'neceſſity of reaching the oppoſite ſhore: 'you have therefore no other choice, but 'of the means. This is the caſe of the 'Small-pox. It is common to all mankind

'with very few exceptions. Moſt of us
'muſt croſs the river. Long experience
'has ſhewn that, of ſeven who venture to
'ſwim over, one is carried down the ſtream:
'whereas, not one in an hundred is loſt of
'thoſe who go over in the boat.—CAN
'YOU DELIBERATE UPON THE CHOICE?'

F I N I S.

LIBRARY
COLLEGE OF PHYSICIANS
OF PHILADELPHIA.